UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,583	11/27/2001	Geoffrey Alan Cleary	60136.0149USU1	7292

94140 7590 06/14/2011

Merchant & Gould - Cox
PO Box 2903
Minneapolis, MN 55402

EXAMINER	
SHELEHEDA, JAMES R	
ART UNIT	PAPER NUMBER
2424	
MAIL DATE	DELIVERY MODE
06/14/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/994,583	CLEARY ET AL.	
	Examiner	Art Unit	
	JAMES R. SHELEHEDA	2424	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 May 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25,27 and 28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25,27 and 28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 05/02/11 have been fully considered but they are not persuasive.

In response to applicant's arguments regarding Safadi,

Safadi specifically discloses "identifying a content stream associated with the selected compressed audiovisual data using an identification code" (as the programming is uniquely identified via EPG data codes; paragraph 61), the identification code identifies the content stream as being time shifted content and provides a data stamp associated with the content stream associated with the selected audiovisual data (EPG updates indicating shifting start/end times for the content to adjust the recording; paragraph 61).

Further, Safadi discloses "over-allocating memory in the mass storage device to record the selected compressed audiovisual data having a variable duration extending beyond the set top time" (as memory is allocated to record the content beginning prior to the start time of the event and ending immediately after the completion time of the event, based on the last near-real-time update of the program guide, thus resulting in the recording of a time period longer than the program duration)(p. 6, paragraph 61).

Further, Safadi discloses determining a final length of the compressed audiovisual data (as he determines the actual recorded program length via updated start/stop times, so as to adjust the recording; paragraph 61).

Finally, Safadi discloses deallocating any over-allocated memory not used to record the selected compressed audiovisual data having a variable duration extending beyond the set stop time after the final length of the selected compressed audiovisual data is determined (a short time after recording the event, updated near-real-time data from the programming guide server is used to accurately establish the times that the event started and ended and any portions which were recorded that don't belong to the desired event is deleted from the recording in order to provide a clean recording and in order to free up disk space; paragraph 61).

Additionally, in regards to "title identification codes", Safadi discloses identifying programming via EPG data. Ellis discloses using title codes to identify programming in the EPG (see Ellis at paragraphs 60, 75, 122, 186-188).

Therefore, applicant's arguments are not convincing.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1**-4**, **7-16**, **25**, **27**, **28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Safadi et al. (Safadi) (2001,0051037 A1) (of record) in view of Ellis et al. (Ellis) (US 2003/0149988 A1) (of record).

Referring to claim **1**, Safadi discloses a method, comprising:

- presenting a program guide identifying audiovisual data and designating a set start time and a set stop time for the identified audiovisual data (p. 6, paragraph 61);
- receiving at a set-top box audiovisual data from a desired transmission channel beginning at the set start time (p. 4, paragraph 37 & p. 6, paragraph 61);
- if said audiovisual data is not compressed according to a predetermined format, compressing said received audiovisual data according to said predetermined format (p. 5, paragraph 51);
- in response to receiving a request for recording compressed audiovisual data selected from the program guide prior to the set start time for the selected compressed audiovisual data identified in the program guide (p. 6, paragraph 61), storing dynamically, in a mass storage device and for a predefined period of time (until viewed)(p. 7, paragraph 73), the selected compressed audiovisual data received from said desired transmission channel to be included in a title plan generated by a time shift scheduler, wherein said title plan includes information identifying the selected compressed audiovisual data stored dynamically (programs for recording) wherein the selected compressed audiovisual data has a variable duration extending beyond the set stop time (p. 5, paragraph 58 & p. 6, paragraph 61), wherein storing the selected compressed audiovisual data dynamically at the set top box comprises:

- identifying a content stream associated with the selected compressed audiovisual data using an identification code (identified via EPG data; paragraph 61), the identification code identifies the content stream as being time shifted content and provides a data stamp associated with the content stream associated with the selected audiovisual data (future content to be recorded at a set start and stop time; paragraph 61);
- over-allocating memory in the mass storage device to record the selected compressed audiovisual data having a variable duration extending beyond the set top time (memory is allocated to record the content beginning prior to the start time of the event and ending immediately after the completion time of the event, based on the last near-real-time update of the program guide)(p. 6, paragraph 61);
- determining a final length of the compressed audiovisual data (determining the actual recorded program length via updated start/stop times; paragraph 61);
- deallocating any over-allocated memory not used to record the selected compressed audiovisual data having a variable duration extending beyond the set stop time after the final length of the selected compressed audiovisual data is determined (a short time after recording the event, updated near-real-time data from the programming guide server is used to accurately establish the times

that the event started and ended and the portion of the event that has been recorded after the event has ended is deleted from the recording in order to provide a clean recording and in order to free up disk space)(p. 6, paragraph 61); and

- in response to a user request, providing to said user said stored compressed audiovisual data beginning with a portion of said stored compressed audiovisual data having associated with it a first temporal parameter (subsequently viewed by the consumer)(p. 6, paragraph 61).

While Safadi discloses identifying a content stream associated with the selected compressed audiovisual data using an identification code (identified via EPG data; paragraph 61), he fails to explicitly disclose title identification codes. Ellis discloses an interactive television system that provides users with an opportunity to select programs for recording (see Abstract). Main program guide data is provided from program guide data source 14 to interactive program guide television equipment 17 (p. 3, paragraph 58). The program data includes program title identifiers and times (p. 3, paragraph 60). Programs are identified through title codes in response to user record requests (p. 5, paragraphs 60, 75, 122, 186-188). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the overrun recording system of Safadi to be utilize title identification codes to identify programming to be recorded, such as that taught by Ellis so as to use a well-known and established

method of recognizing and identify the desired programming (Ellis p. 1, paragraph 60, 75, 186-188).

Referring to claims **2**, **3**, Safadi discloses a method comprising:

- in response to a title plan generated by a time shift scheduler, wherein said title plan includes information identifying a plurality of content and designating a set start time and a set stop time for each of the identified plurality of content (near-real-time program guide data)(p. 6, paragraph 61), wherein at least one of said plurality of content has a variable duration extending beyond the set stop time (p. 5, paragraph 58 & p. 6, paragraph 61), in response to receiving a request for recording content selected from the title plan prior to the start time of the selected content, storing dynamically the selected content and associating with the plurality of content a temporal parameter (p. 6, paragraph 61), wherein storing dynamically at the set top box comprises:
    - identifying a content stream associated with the selected compressed audiovisual data using an identification code (identified via EPG data; paragraph 61), the identification code identifies the content stream as being time shifted content and provides a data stamp associated with the content stream associated with the selected audiovisual data (future content to be recorded at a set start and stop time; paragraph 61);

- over-allocating memory in the mass storage device to record the selected compressed audiovisual data having a variable duration extending beyond the set top time (memory is allocated to record the content beginning prior to the start time of the event and ending immediately after the completion time of the event, based on the last near-real-time update of the program guide)(p. 6, paragraph 61);
- determining a final length of the compressed audiovisual data (determining the actual recorded program length via updated start/stop times; paragraph 61);
- deallocating any over-allocated memory not used to record the selected compressed audiovisual data having a variable duration extending beyond the set stop time after the final length of the selected compressed audiovisual data is determined (a short time after recording the event, updated near-real-time data from the programming guide server is used to accurately establish the times that the event started and ended and the portion of the event that has been recorded after the event has ended is deleted from the recording in order to provide a clean recording and in order to free up disk space)(p. 6, paragraph 61); and
- forwarding the selected content in accordance with said temporal parameter to a requesting subscriber (p. 6, paragraph 61); and

- in response to a subscriber request for temporally shifted content associated with the selected content, forwarding the stored selected content to said requesting subscriber (subsequently viewed by the consumer)(p. 6, paragraph 61).

Safadi does not specifically disclose that the content is received and stored by a server and provided over a transport network to subscribers, where only the received plurality of content presently requested by any subscriber is forwarded to the transport network and title identification codes. Ellis discloses an interactive television system that provides users with an opportunity to select programs for recording on a remote media server (see Abstract). Main program guide data is provided from program guide data source 14 to interactive program guide television equipment 17 (p. 3, paragraph 58). The program data includes program identifiers and times (p. 3, paragraph 60). Programs are identified through title codes in response to user record requests (p. 5, paragraphs 60, 75, 122, 186-188). The interactive program guide television equipment 17 has a remote media server (Fig. 2a). Programs are stored on remote media server in response to user record requests (p. 5, paragraphs 74, 76). Recorded programs are then received and transmitted to subscribers in response to subscriber retrieval requests (p. 7, paragraph 91). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the overrun recording system of Safadi to be implemented on a remote media server, such as that taught by Ellis in order to provide greater storage space (Ellis p. 1, paragraph 5).

Referring to claim **4**, the combination of Safadi and Ellis teaches the method of claim 2. The combination of Safadi and Ellis does not specifically teach storing, in said server, the plurality of content presently requested by a threshold number of subscribers. Ellis discloses a consolidator 115 on the remote media server that consolidates multiple record requests for the same programs and places group record jobs on a job queue 120 (p. 6, paragraph 85). Ellis further discloses only recording a program if a certain number of users have requested it (p. 6, paragraph 86). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the combination of Safadi and Ellis to include only recording programs requested by a certain number of users, such as that taught by Ellis in order to save storage space.

Referring to claim **7**, the combination of Safadi and Ellis teaches the method of claim 2, wherein said storing of said desired plurality of content comprises storing a version of the desired plurality of content to generate a play track (content is played on subsequent access by user)(Safadi p. 7, paragraph 78).

Referring to claim **8**, the combination of Safadi and Ellis teaches the method of claim 2, further comprising, storing selected plurality of content during a predetermined time interval of a broadcast schedule (Safadi p. 6, paragraph 61).

Referring to claim **9**, the combination of Safadi and Ellis teaches the method of claim 2, wherein said subscriber request for temporally shifted content is initiated by receiving a subscriber title selection from a time shift interactive programming guide screen (Safadi p. 6, paragraph 61).

Referring to claim **10**, the combination of Safadi and Ellis teaches the method of claim 2, wherein said subscriber request for temporally shifted content is initiated by receiving a subscriber title selection from a time shift navigation screen (Safadi p. 6, paragraph 61).

Referring to claim **11**, the combination of Safadi and Ellis teaches the method of claim 2. The combination of Safadi and Ellis does not specifically teach that the subscriber request for temporally shifted content is initiated by receiving a pause or rewind subscriber selection while broadcasting of said desired plurality of content. Ellis discloses providing VCR-like control of content stored at the remote media server, so that content can be provided in response to rewind and pause requests (p. 19, paragraphs 199, 200). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify transmission of content in the combination of Safadi and Ellis to provide content in response to a rewind or pause request, such as that taught by Ellis in order to provide greater user-control over when to view content.

Referring to claims **12-14**, **25**, **27**, and **28**, Safadi discloses a method/system for providing video information in an interactive information distribution system to a plurality of subscribers, comprising:

- receiving a plurality of scheduled broadcast programs at the set top box on a desired transmission channel in real-time (p. 4, paragraph 37);
- selecting a portion of said broadcast programs according to a title plan generated by a time shift scheduler, wherein said title plan includes information identifying a plurality of content and designating a set start time and a set stop time for each of the identified plurality of content, wherein at least one of said plurality of content has a variable duration extending beyond the set stop time (p. 6, paragraph 61);
- processing said selected broadcast programs into temporally adjusted content, such that the temporally adjusted content is associated with said selected broadcast programs (recorded for subsequent viewing)(p. 6, paragraph 61);
- in response to receiving a request for recording content selected from the title plan prior to the start time for the selected content having a variable duration, storing dynamically said selected content associated with a program and having a variable duration extending beyond the set stop time for later access by subscribers (p. 6, paragraph 61), wherein storing dynamically at the set top box said selected content having a variable

duration extending beyond the set stop time for later access by subscribers comprises:

- identifying a content stream associated with the selected compressed audiovisual data using an identification code (identified via EPG data; paragraph 61), the identification code identifies the content stream as being time shifted content and provides a data stamp associated with the content stream associated with the selected audiovisual data (future content to be recorded at a set start and stop time; paragraph 61);
- over-allocating memory in the mass storage device to record the selected compressed audiovisual data having a variable duration extending beyond the set top time (memory is allocated to record the content beginning prior to the start time of the event and ending immediately after the completion time of the event, based on the last near-real-time update of the program guide)(p. 6, paragraph 61);
- determining a final length of the compressed audiovisual data (determining the actual recorded program length via updated start/stop times; paragraph 61);
- deallocating any over-allocated memory not used to record the selected compressed audiovisual data having a variable duration extending beyond the set stop time after the final length of the selected compressed audiovisual data is determined (a short time after

recording the event, updated near-real-time data from the programming guide server is used to accurately establish the times that the event started and ended and the portion of the event that has been recorded after the event has ended is deleted from the recording in order to provide a clean recording and in order to free up disk space)(p. 6, paragraph 61); and

- transmitting said selected content to a subscriber (p. 6, paragraph 61).

Safadi does not specifically disclose broadcasting the selected content to a plurality of subscribers via a desired transmission channel and a title identification code. Ellis discloses an interactive television system that provides users with an opportunity to select programs for recording on a remote media server (see Abstract). Main program guide data is provided from program guide data source 14 to interactive program guide television equipment 17 (p. 3, paragraph 58). The program data includes program identifiers and times (p. 3, paragraph 60). The interactive program guide television equipment 17 has a remote media server (Fig. 2a). Programs are identified through title codes in response to user record requests (p. 5, paragraphs 60, 75, 122, 186-188). Programs are stored on remote media server in response to user record requests (p. 5, paragraphs 74, 76). Recorded programs are then received and transmitted to subscribers in response to subscriber retrieval requests (p. 7, paragraph 91). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the overrun recording system of Safadi to be implemented on a remote

media server, such as that taught by Ellis in order to provide greater storage space (Ellis p. 1, paragraph 5).

The combination of Safadi and Ellis does not specifically teach, in a first mode of operation, associating a temporal parameter to said selected content having a variable duration extending beyond the set stop time and streaming, on-demand, said selected content having the variable duration extending beyond the set stop time and said temporal parameter to those subscribers viewing said selected content, such that said subscribers may interactively such selected content having a variable duration extending beyond the set stop time contemporaneously with currently broadcast programs, wherein the first mode of operation further comprises providing an interactive program guide (IPG) to said subscribers having screens presenting and selected content having temporally adjusted content for viewing and selection. The combination of Safadi and Ellis further does not specifically teach providing a navigator list to said subscribers having screens presenting said selected content for viewing and selection, wherein in an alternate mode of operation, streaming, on-demand, said selected content via said navigator list, such that said subscribers may interactively activate such selected content during viewership of previously scheduled broadcast programs selected from said navigator list, wherein said subscribers may interactively switch between said first mode and said alternate mode of operation. Ellis further discloses a mode of caching currently broadcast programs and allowing users to perform VCR-like commands, such as fast-forward, pause, or rewind, to move from the currently broadcast program into the cached version of the program. Ellis still further discloses a

mode of allowing users to access a list of programs that have already been recorded on remote media server 24 and selecting programs from the list for viewing (p. 13, paragraph 145 & Fig. 18a). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the remote media storing in the combination of Safadi and Ellis to include allowing users to rewind a currently broadcast program or access a list of programs that were previously broadcast and recorded, such as that taught by Ellis in order to provide greater user-control over when to view content.

Referring to claim **15**, the combination of Safadi and Ellis teaches the method of claim 12. The combination of Safadi and Ellis does not specifically teach that the selecting step comprises:

- monitoring subscriber viewership; and
- selecting those broadcast programs having a viewership exceeding a predetermined metric.

Ellis discloses monitoring users who have selected a program for recording and selected programs of a certain popularity (p. 6, paragraphs 85-87). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the combination of Safadi and Ellis to include only recording popular programs, such as that taught by Ellis in order to save storage space.

Referring to claim **16**, the combination of Safadi and Ellis teaches the method of claim 12, wherein said selecting step further comprises:

- generating title plans for identifying content to be temporally adjusted (Safadi p. 6, paragraph 61); and
- defining a temporal availability window for each program (p. 6, paragraph 61).

4. Claims **5**, **6**, **17-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Safadi and Ellis, and further in view of Moeller et al. (Moeller) (5,903,264) (of record).

Referring to claims **5** and **6**, the combination of Safadi and Ellis teaches the method of claim 2. The combination of Safadi and Ellis does not specifically teach that the storing of the desired plurality of content comprises storing a temporally sub-sampled version of the desired plurality of content to generate a fast-forward track. The combination of Safadi and Ellis further does not specifically teach that the storing of said desired plurality of content comprises storing a temporally sub-sampled version of the desired plurality of content in reverse order in order to generate a reverse track. Moeller discloses a system that is capable of transferring or playing a normal play stream at any of various indicated positions or locations (col. 6, l. 45-49). The media server stores fast forward and fast reverse streams in association with normal play streams (col. 4, l. 61-65). The fast forward and fast reverse streams have different presentation rates than the normal play stream and are generated from the normal play stream (col. 6, l. 51-59). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the step of storing in the combination of Safadi and Ellis

to include storing fast forward and fast reverse streams in association with a normal play stream, such as that taught by Moeller in order to decrease latency time at a video server.

Referring to claim **17**, the combination of Safadi and Ellis teaches the method of claim 16. The combination of Safadi and Ellis does not specifically teach that the processing comprises generating real-time encoded play tracks, fast-forward tracks, rewind tracks, and entry point data (EPD) files associated with each track, said fast-forward tracks and rewind tracks forming temporally adjusted content. Moeller discloses generating fast forward and fast reverse video streams from a normal play stream (col. 6, l. 55-59) and embedding indexing information within the streams to provide for indexing between the streams (col. 9, l. 10-14 & col. 11, l. 39-41). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the processing step in the combination of Safadi and Ellis to include generating fast forward and fast reverse video streams from a normal play stream and embedding indexing information within the streams to provide for indexing between the streams, such as that taught by Moeller in order to efficiently index to different positions in a video stream in a video delivery system (col. 4, l. 20-23).

Referring to claim **18**, the combination of Safadi, Ellis, and Moeller teaches the method of claim 17. The combination of Safadi, Ellis, and Moeller does not specifically teach that the processing step further comprises:

- encoding said content identified in said title plan to form said temporally adjusted content; and
- buffering said encoded content.

Moeller discloses generating compressed fast forward and fast reverse video streams from a normal play stream (col. 6, l. 55-59). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the processing step of the combination of Safadi and Ellis to include generating compressed fast forward and fast reverse video streams from a normal play stream, such as that taught by Moeller in order to decrease latency time at a video server.

Referring to claim **19**, the combination of Safadi, Ellis, and Moeller teaches the method of claim 18. The combination of Safadi, Ellis, and Moeller does not specifically teach that the processing step further comprises:

- receiving packetized transport streams from at least one encoder; and
- inserting title identification codes (TICS) to each packet to enable said transport streams to be identified as said real-time encoded play tracks, fast-forward tracks, and rewind tracks.

Moeller discloses generating compressed fast forward and fast reverse video streams from a normal play stream (col. 6, l. 56-59). Moeller further discloses that the encoded stream includes sequence headers that include presentation timestamps and information describing the frame rate and picture size (col. 9, l. 57-62). Moeller further discloses embedding indexing information within the normal play stream and associated

trick play streams to provide for indexing between the streams (col. 9, l. 10-14). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the processing step of the combination of Safadi and Ellis to include embedding timestamps, frame rate information, and indexing information within play streams and trick play streams, such as that taught by Moeller in order to decrease latency time at a video server.

Referring to claims **20** and **21**, the combination of Safadi, Ellis, and Moeller teaches the method of claim 19. The combination of Safadi, Ellis, and Moeller does not specifically teach generating the EPD files as said fast-forward and rewind tracks are being created, where the EPD files provide transition between streaming of the Play, fast-forward and rewind tracks at appropriate points in response to user commands. Moeller discloses generating and embedding index information within normal play streams and associated trick play streams to provide for indexing between the streams (col. 9, l. 10-14). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the combination of Safadi, Ellis, and Moeller to include generating and embedding index information within normal play streams and associated trick play streams, such as that taught by Moeller in order to decrease latency time at a video server.

5. Claims **22-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Safadi, Ellis and Moeller in view of Youden et al. (Youden) (5,606,359) (of record).

Referring to claim **22**, the combination of Safadi, Ellis, and Moeller teaches the method of claim 19, wherein the storing step comprises receiving buffered encoded content and storing the real-time play tracks in a plurality of extents (Safadi p. 6, paragraph 61). The combination of Safadi, Ellis, and Moeller does not specifically teach storing the fast-forward tracks in extents in a front to back order and storing rewind tracks in extents in a back to front order. Youden discloses storing selected video data for a FF version in the same order as the original video data is stored and storing the selected video data for the FR version in reverse order to the original version of the video data (col. 4, l. 3-7). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the storing step in the combination of Safadi, Ellis, and Moeller to include storing video data for a FF version in the same order as the original video data is stored and storing the selected video data for the FR version in reverse order to the original version of the video data, such as that taught by Youden in order to decrease latency time at a video server.

Referring to claim **23**, the combination of Safadi, Ellis, Moeller, and Youden teaches the method of claim 22, where said storing step further comprises storing selected content from a particular channel for a fixed window of time (Safadi p. 7, paragraph 73).

Referring to claim **24**, the combination of Safadi, Ellis Moeller, and Youden teaches the method of claim 22, where said storing step further comprises storing selected content from a plurality of channels (Safadi p. 4, paragraph 37).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES R. SHELEHEDA whose telephone number is (571)272-7357. The examiner can normally be reached on Monday - Friday, 9:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pankaj Kumar can be reached on (571) 272-3011. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JAMES R SHELEHEDA/
Primary Examiner, Art Unit 2424

JS